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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,866	02/22/2002	Mark E. Kelly	MSC-23309-1	8743
24957	7590	08/25/2005	EXAMINER	
NASA JOHNSON SPACE CENTER MAIL CODE HA 2101 NASA RD 1 HOUSTON, TX 77058			MENDOZA, MICHAEL G	
			ART UNIT	PAPER NUMBER
			3731	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/087,866

Applicant(s)

KELLY ET AL.

Examiner

Michael G. Mendoza

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 58-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 58-60 is/are allowed.
- 6) ☒ Claim(s) 61 and 64-66 is/are rejected.
- 7) ☒ Claim(s) 62, 63, and 67-69 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 7 March 2005 have been fully considered but they are not persuasive. The Applicant argues that Cramer et al. fails to teach an independent oxygen monitoring system. The Examiner disagrees. Cramer et al. teaches an oxygen monitor a warning device that is independent of the oxygen system. The oxygen system of Cramer et al. does not require the warning device to work properly. In other words the oxygen system can work independently from the oxygen source of the system as stated in column 3, lines 45-50 of Cramer et al. The oxygen system is turned on by a switch 16, and the flow of the oxygen from the source 130 is controlled by the pilot by a flow regulator. The device does not control the flow of oxygen as argued by the Applicant in page 9, lines 18-20 of the response. The device is a warning system that is connected to an oxygen system. The oxygen system would still deliver oxygen with or without the warning device.
2. Cramer et al. teaches the measurement of the oxygen partial pressure within the entire system. Basham et al. teaches that is known to measure the same oxygen partial pressure inside of a user's mask as opposed to the entire system.
3. In response to applicant's argument that Debe et al. is not used in an aircraft, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of

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making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

***Claim Rejections - 35 USC § 103***

4. Claims 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cramer et al. 4109509 in view of Debe et al. 5659296 in further view of Basham et al. 3675649.

5. As to claims 61 and 64-66, Cramer et al. teaches an apparatus for monitoring an oxygen partial pressure in an air mask adapted to deliver oxygen from an oxygen system to an operator, the air mask having an interior surface, the apparatus comprising: a sensor 76 capable of providing an output signal corresponding to the oxygen partial pressure; a comparator 114 connected to the sensor and configured to compare the output signal with a reference signal corresponding to a desired oxygen partial pressure; a power source 120 connected to the sensor and the comparator; an amplifier connected to the sensor and the comparator and configured to amplify the output signal (col. 3, lines 31-41) It should be noted that Cramer et al. fails to teach a tactile warning means/vibrating motor/vibrator.

6. Debe et al. teaches an apparatus with a common tactile warning means/vibration motor/vibrator on a mask for providing a tactile indication or warning of unwanted conditions. Therefore it would have been obvious to one having ordinary skill in the art to use a vibration motor as an alternative means for warning (col. 8, lines 36-51).

7. It should be further noted that Cramer/Debe fails to teach wherein the sensor is positioned within the air mask. Basham et al. teach a common mask with a common sensor mounted in an air mask for monitoring oxygen partial pressure. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the sensor of Basham in a mask for generating a signal in accordance with conditions in the mask and to maintain breathable gas conditions in the mask (see abstract).

***Allowable Subject Matter***

8. Claims 58-60 are allowable over the prior art of record.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or render obvious the overall claimed invention of an apparatus for monitoring an oxygen partial pressure in an air mask adapted to deliver oxygen from an oxygen system to an operator, the air mask having an interior surface, the apparatus comprising: a vibrating motor, having a rotatable, eccentric mass, mounted within the air mask, connected to a comparator, and attached to the interior surface of the air mask, the vibrating motor comprising means for vibrating the air mask if a output signal is determined to be lower than the reference signal, for generating a tactile warning on the face of the operator to alert the operator of a potentially hypoxic condition.

10. Claims 62, 63, and 67-69 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Contacts**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael G. Mendoza whose telephone number is (571) 272-4698. The examiner can normally be reached on Mon.-Fri. 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on (571) 272-44963. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MM

  
**ANH TUAN I. NGUYEN**  
**SUPERVISORY PATENT EXAMINER**

